

City of Tigard



Tigard Parks Maintenance Fee
Report to Council for
January 12, 2016 public hearing

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SECTION I: INTRODUCTION

The City of Tigard (City) Parks Division maintains, operates, and owns 548 acres of park land which provides citizens with recreational opportunities, maintains environmentally sensitive lands, and meets or exceeds all regulatory standards. In addition to maintaining park land, the public works department is tasked with the maintenance of trails, planning new facilities, and running recreational activities for citizens of all ages.

As Tigard's population and employment grow, the need for recreational opportunities increase as well. The latest voter approved parks bond has enabled the city to acquire a substantial amount of land it intends to develop into community assets but those dollars cannot be used to develop that land into usable parks. Meanwhile, necessary maintenance of existing parks has been deferred in the face of Tigard's constrained general fund.

This report evaluates the utility rate revenue requirement to enable the City's parks fund to meet its ongoing operating and capital expenses and establishes a basis for a local charge to assist in funding any revenue deficiencies. In addition, this report provides a series of scenarios which analyze the revenue requirements in the case that certain parks priorities are fully funded (e.g., addressing deferred maintenance, developing city-owned park land, funding recreational programs, etc.) and what a parks utility fee designed to address those needs would cost citizens and businesses in Tigard.

The purpose of the Tigard Parks Maintenance Fee (PMF) is to provide a reliable source of revenue for ongoing parks operations and maintenance. The reasons for a PMF include:

- ◆ Maintenance is more expensive the longer it is deferred
- ◆ Other financing mechanisms (e.g., system development charges) help construct capital assets but cannot be used for operations
- ◆ Expenditures have been increasing in all city operations putting undue pressure on the General Fund as a limited resource with many demands
- ◆ Over the last 15 years, park land has grown 66% while staffing to maintain parks has increased 12% in Tigard.

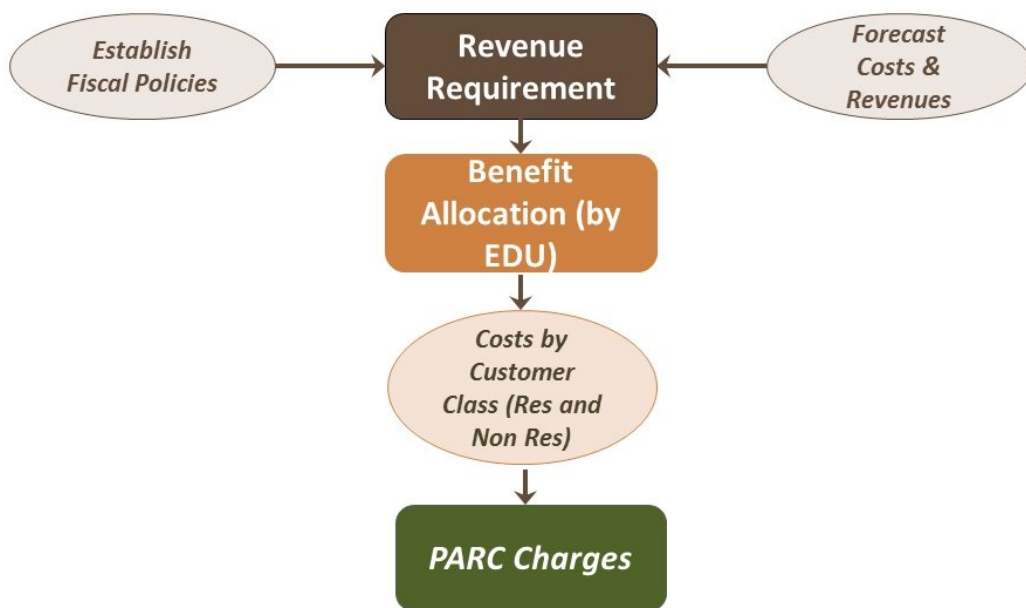
SECTION II: RATE STUDY METHODOLOGY

A. RATE SETTING PRINCIPLES AND METHODOLOGY

The methods used to establish user rates are based on principles that are generally accepted and widely followed throughout the industry. These principles are designed to produce rates that equitably recover costs from residents and businesses by setting the appropriate level of revenue to be collected from ratepayers, and establishing a rate structure to equitably collect those revenues.

Exhibit 2.1 illustrates the overview of the methodology used in this rate study process.

Exhibit 2.1: Overview of the Rate Study Process



B. FISCAL POLICIES

The stewardship of public funds is one of the greatest responsibilities given to the officials and the managers of the City. Therefore, the establishment and maintenance of wise fiscal policies enables City officials to protect public interest and ensure public trust. This study incorporates fiscal policies observed by the City to ensure that current policies are maintained, including reserve levels, capital/system replacement funding and debt service coverage.

C. REVENUE REQUIREMENT

The revenue requirement analysis will form the basis for a long-range financial plan and multi-year rate management strategy for the parks system. It also enables the City to establish a rate structure which will fully recover the total cost of operating the parks system: capital improvement, capital replacement, operations, maintenance, general administration, fiscal policy attainment, cash reserve management, and expanded programs. Linking rate levels to a financial plan such as this helps to enable not only sound financial performance for the City's parks fund, but also a clear and reasonable relationship between the costs imposed on utility customers and the costs incurred to provide service.

A revenue requirement analysis includes the following core elements to form a complete portrayal of the parks utility's financial obligations.

- ◆ Operating Forecast. Identifies future annual non-capital costs associated with the operation, maintenance, and administration of the system.
- ◆ Deferred Maintenance. Measures the value of asset replacement and current required maintenance activities necessary to maintain adequate parks facilities condition.
- ◆ Capital Funding Plan. Defines a strategy for funding the City's capital improvement program, including an analysis of available resources from system development charges, debt financing, and any special resources that may be readily available (grants, outside contributions, etc.). Identifies if additional funding sources are needed.
- ◆ Revenue Sufficiency Testing. Evaluates the sufficiency of revenues in meeting all financial obligations, including any coverage requirements associated with long-term debt.
- ◆ Rate Strategy Development. Designs a forward-looking strategy for establishing rates to fully fund financial obligations on an annual basis over the projection period.

D. RATE DESIGN

The principal consideration of rate design is for the rate structure to generate sufficient revenues for the system which are reasonably commensurate with the cost of providing service. The pricing structure is largely dictated by the objectives of the system. Most rate structures consist of a combination of fixed and variable charges. Fixed charges typically attempt to cover system costs that do not vary with usage. Variable charges typically serve two functions, equitably recovering variable costs and encouraging customers to use the system efficiently. In this case, variable costs associated with the parks utility fee are based upon the services and materials the city chooses to fund through the utility fee.

SECTION III: REVENUE REQUIREMENT

A. INTRODUCTION

A revenue requirement analysis forms the basis for a long-range financial plan and multi-year rate management strategy. The analysis is developed by completing an operating forecast that identifies current and future annual operating costs, deferred maintenance costs, and a capital funding plan that defines a strategy for funding the capital improvement needs of the City not being addressed by SDCs, funding for additional recreational activities and programs.

B. OPERATING FORECAST

The purpose of the operating forecast is to determine at what level the potential rates and charges are sufficient to recover the costs the City incurs to operate and maintain the parks system. The fiscal year (FY) 2015-16 budget provided the primary basis for developing a multi-year forecast for FY 2016-17 through FY 2025-26 expenses. The complete 10-year forecasts are included in the **Technical Appendix**. The ensuing discussion highlights the key assumptions used to develop the parks operating forecast.

B.1 Non-User Revenue

Historically, parks funding in Tigard has been dependent upon general fund transfers, parks SDCs, voter-approved bonds, and grants. A summary of key non-user fee revenue assumptions includes:

- ◆ **General Fund Transfers:** General fund transfers provide Tigard's parks with the majority of needed operations and maintenance dollars. It is assumed that these transfers will cease if the parks utility fee is implemented.
- ◆ **SDCs:** SDC fund transfers provide Tigard's parks with the majority of the capital costs necessary for development of new park land or purchase of other assets. These incomes were generally not included in the modeling of this fee.
- ◆ **Voter-Approved Parks Bond:** Residents of Tigard agreed to an increase in their property taxes in order to provide Tigard with money to purchase new parks land. Given that this income stream is finite, bond proceeds were not included in the model.

B.2 Expenditure Projections

- ◆ Salaries were budgeted at \$904,416 in FY 2015-16 and were anticipated to grow at 4% annually.
- ◆ Benefits were budgeted at \$374,149 in FY 2015-16 and were anticipated to grow at 6.67% annually.
- ◆ Materials and services were budgeted at \$605,432 and costs were anticipated to grow at 3% annually.

- ♦ Capital Outlay expenses were budgeted at \$49,000 in FY 2015-16 and capital outlay expenses were expected to grow at 4.5% annually.
- ♦ Payments for Citywide Support Services were budgeted at \$270,417 in FY 2015-16 and annual transfers out were expected to grow at 4.1% annually.

It should be noted that recreation program expenses at current levels include a portion of the annual salary, benefits and services budgets. The PMF analysis includes a sensitivity analysis removing the recreation expenditures from the overall budget. In FY 2016, the recreation spending is \$177,410 (\$70,000 salary, \$30,798 benefits and \$76,612 in professional services). If recreation expenses are not included in the PMF revenue requirement, they would likely continue to be funded by the city's General Fund and User Fees.

Each PMF fee development scenario contains a unique set of parameters with cost and fee assumptions. Discussion of each scenario is included in Section III.D. Detailed tables of scenario-based cost assumptions can be found in **Appendix D** and further cost estimate detail can be found in **Appendix E**.

B.3 Existing User Fees

Tigard's parks generate funds when users reserve areas, pay to participate in recreational sports leagues, or to enter designated facilities. City staff indicated the fees would defray \$70,000 of the total department expenditures. We assume that user fee revenue increases by 3 percent per year for the 10-year planning horizon. **Exhibit 3.1** shows the forecasted budget expenditures based on the FY 2015-16 budget including the user fee revenue reduction.

Exhibit 3.1: Parks Utility Fee Scenarios

Adopted Budget: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21
Salaries	\$ 940,593	\$ 978,216	\$ 1,017,345	\$ 1,058,039	\$ 1,100,360
Benefits	399,105	425,725	454,121	484,411	516,721
Materials and services	623,595	642,303	661,572	681,419	701,862
Capital outlay	51,205	53,509	55,917	58,433	61,063
Transfers	281,504	293,046	305,061	317,568	330,588
Less: Existing User Fees	(70,000)	(72,100)	(74,263)	(76,491)	(78,786)
Total expenditures	\$ 2,226,001	\$ 2,320,699	\$ 2,419,753	\$ 2,523,379	\$ 2,631,809

C. CAPITAL FUNDING PLAN

The adopted Tigard parks and trails capital improvement plan includes \$13 million in total costs in the 7-year projection period (**Appendix E2**). Costs represented in this plan are based on inflated dollars to the year of construction. Representative projects include:

- ♦ **Fanno Creek Remeander:** A \$1,147,000 project intended to reduce erosion impacts by lengthening the channel and decreasing the slope of the stream bed. This project will also require the realignment of a portion of the Fanno Creek Regional Trail.
- ♦ **Dirksen Nature Park:** A \$3.8 million project which will maintain 35 acres of natural area while also renovating an existing educational building on the site as well as improving trail connections throughout the property, among other improvements.
- ♦ **Tree Canopy Replacement Program:** A \$600,000 project which intends to replace lost tree canopy along stream corridors, school grounds, highways, and other areas.

- ♦ **Park Land Acquisition:** A \$890,000 dollar effort to identify and purchase park land with funds coming from Tigard's citizen approved parks bond.
- ♦ **Downtown Land Acquisition:** A \$1.3 million effort to identify and purchase park land exclusively within downtown Tigard with funds coming from Tigard's citizen approved parks bond.
- ♦ **Tigard Street Trail and Public Space:** An \$45,000 trail project which is intended to connect SW Tiedeman Avenue to downtown Tigard and Tigard Transit Center by converting a disused rail spur.
- ♦ **Damaged Tree Replacement Program:** A \$300,000 effort to increase the quality and quantity of large trees and tree canopy.
- ♦ **Fanno Creek Trail Connection:** A \$4.8 million project which intends to close numerous gaps on the Fanno Creek Regional Trail present within the city of Tigard.

The capital funding strategy envisions funding these projects through a mix of available cash balances including grants, System Development Charges, and transfers from other funds.

D. SUMMARY OF REVENUE REQUIREMENT

The operating forecast components of operations and maintenance (O&M) expenses, debt service, and system reinvestment come together to form the multi-year revenue requirement. The revenue requirement compares the overall revenue available to the parks system to the expenses and evaluates the sufficiency of rates on an annual basis.

Seven scenarios were developed to evaluate the potential for Tigard's parks utility fee to support various revenue requirements:

D.1 Scenario 1: Funding Parks at Existing Levels

Appendix A1 displays the results of the revenue requirement analysis of scenario 1. In this scenario, the parks utility fee assumes the parks costs which in the past were paid for using general fund transfers. This scenario assumes that no increase in parks funding occurs, meaning that deferral in needed maintenance continues and no funding is added to expand recreational programs or add capital projects as part of the PMF. Revenue requirements gradually and steadily increase as residential and employment growth increase. The revenue requirement for scenario 1 increases from \$2,226,001 in FY 2016-17 to \$3,254,938 in FY 2025-26.

As noted previously, the PMF analysis includes a sensitivity analysis removing the recreation expenditures from the overall budget. In FY 2016, the recreation spending is \$177,410. Hence, if recreation expenses are not included in the PMF revenue requirement, the annual revenue requirement for scenario 1 would be lower by approximately \$180,000 dollars.

D.2 Scenario 2: Funding Deferred Maintenance

Appendix A2 displays the results of the revenue requirement analysis of scenario 2. In this scenario, the parks utility fee pays for deferred maintenance costs. This includes equipment and vehicle repair and replacement, repairs to trails, and other maintenance activities. The revenue requirement associated with scenario 2 fluctuates annually based upon the replacement timeline for assets. The initial year of the revenue requirement also addresses previously deferred maintenance whereas the following years address deferred maintenance requirements in that specific year. The revenue requirement for scenario 2 ranges from a high of \$1,179,539 in FY 2016-17 to a low of \$244,343 in FY 2025-26.

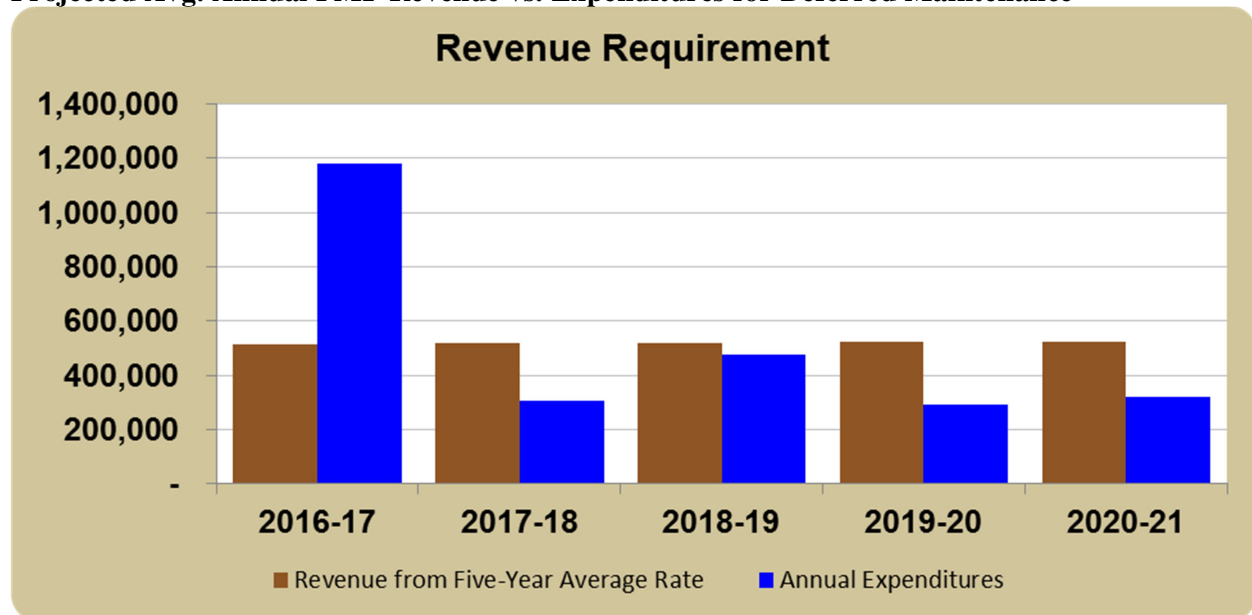
Cost estimates for this scenario can be found in **Appendix D1** while further detail regarding the cost assumptions associated with this revenue requirement can be found in **Appendix E1**.

As shown in the following Exhibit, expenditures in this scenario are highly variable. To correctly account for expenditures in the utility rate and ensure low rate volatility, it is recommended that the city utilize a five-year average PMF rate. The annual revenue compared to annual expenditures for this scenario is shown in **Exhibit 3.2**. Since this approach will likely result in 1 or 2 years with inadequate fund balances to cover planned deferred maintenance, the city may need to transfer (borrow) funds from other city funds to cover temporary imbalances until reserves build up over time.

The five-year (smoothed) revenue requirement for scenario 2 would result in an initial revenue requirement of approximately \$514,000, as noted in **Appendix A2-B**, which is also part of the recommended PMF rate scenario.

Exhibit 3.2:

Projected Avg. Annual PMF Revenue vs. Expenditures for Deferred Maintenance



D.3 Scenario 3: Fully Funding CIP

Appendix A3 displays the results of the revenue requirement analysis of scenario 3. In this scenario, the parks utility fee pays for the costs of all CIP-related transfers from the Urban Forestry Fund and transfers from the Transportation CIP Fund which are currently expected to fund capital projects. This scenario would reduce parks-related transfers from city accounts while identifying financing necessary to complete anticipated CIP projects (**Appendix E2**). This would also ensure such projects were funded with guaranteed funds rather than assuming funds from SDCs or other sources will be available. The revenue requirement fluctuates through the first five years and then gradually increases over the last five years. This fluctuation is due to the CIP calling for uneven expenses year to year since its costs are associated with the purchase and construction of facilities.

The revenue requirement for scenario 3 begins at \$857,500 in FY 2016-17, fluctuates in the next four years from \$0 to \$1,174,500, and then averages around \$600,000 in the last five years. An annual cost breakdown of this scenario can be found in **Appendix D2** while further detail regarding the cost assumptions associated with this revenue requirement can be found in **Appendix E2**.

D.4 Scenario 4: Develop Current Lands

Appendix A4 displays the results of the revenue requirement analysis of scenario 4. In this scenario, the parks utility fee pays for the capital and O&M costs associated with the development of new park land purchased using Tigard's voter approved parks bond. This would allow the city to build parks quicker with more stable funding sources than is currently possible. This scenario's revenue requirement increases over the 10-year planning horizon with costs growing at a faster rate each fiscal year. This is due to rapidly increasing operations and maintenance costs associated with bringing additional facilities on-line. The revenue requirement for scenario 4 increases from \$203,624 in FY 2016-17 to \$452,008 in FY 2025-26. An annual cost breakdown of this scenario can be found in **Appendix D3** while further detail regarding the cost assumptions associated with this revenue requirement can be found in **Appendix E3**.

D.5 Scenario 5: Develop New Lands

Appendix A5 displays the results of the revenue requirement analysis of scenario 4. In this scenario, the parks utility fee pays for the currently budgeted parks expenditures and adds the cost of the purchase, development, and O&M of new park land which has not yet been acquired through Tigard's voter approved parks bond. This would allow the city to expand their parks inventory, continuing to build in anticipation of a growing population and employment base. The revenue requirement for scenario 5 increases steadily as operations and maintenance expenses associated with opening new facilities grow. The revenue requirement for scenario 5 increases from \$84,687 in FY 2016-17 to \$486,452 in FY 2025-26. An annual cost breakdown of this scenario can be found in **Appendix D4** while further detail regarding the cost assumptions associated with this revenue requirement can be found in **Appendix E3**.

D.6 Scenario 6: Funding New Recreational Programs

Appendix A6 displays the results of the revenue requirement analysis of scenario 6. In this scenario, the parks utility fee pays for the cost of implementing programs identified as council priorities. Among those activities, scenario 6 assumes that one full time recreation employee will be hired in FY 2016-17 and another will be hired in FY 2018-19. Additionally, a recreation guide will be published and made available along with the implementation of an online reservation system for park facility rental. It is anticipated that the reservation system and recreation guide will generate additional revenue for the parks department in the form of participation fees, user fees, and rental fees. Finally, the city will also provide grants and scholarships so that low-income citizens can participate in the newly realized activities. The revenue requirement for this scenario increases steadily from \$153,076 in FY 2016-17 to \$617,733 in FY 2020-21 then, averages \$420,000 in the final five years. An annual cost breakdown of this scenario can be found in **Appendix D5**.

D.7 Scenario 7: Funding Special Community Assets

Appendix A7 displays the results of the revenue requirement analysis of scenario 7. In this scenario, the parks utility fee pays for the cost of implementing an arts and culture program through which the city of Tigard would purchase and display artwork throughout the city. In addition, scenario 7 would fund the construction of stormwater facilities in city parks. The revenue requirement for scenario 7 increases along with employment and residential growth because the programs funded by this scenario do not fluctuate in cost based on the year being considered. The revenue requirement increases from \$201,627 in FY 2016-17 to \$248,192 in FY 2025-26. An annual cost breakdown of this scenario can be found in **Appendix D6** while further detail regarding the cost assumptions associated with this revenue requirement can be found in **Appendix E4**.

SECTION IV: RATE DESIGN

A. INTRODUCTION

The principal objective of the rate design stage is to develop parks utility rate structures that collect the appropriate level of revenue. The City currently does not assess local charges for parks utility service. In order to fund the activities identified in the revenue requirement section above, it is recommended that a local charge be formed.

B. PARKS UTILITY FUNDING

The existing parks funding mechanisms in Tigard are grouped into two purposes: those funds dedicated to capital purchases and those funds dedicated to maintenance for parks. Capital funds have historically come from SDC revenues, transfers from capital funds and grants. Meanwhile, the majority of operations expenses have come from transfers from the city's general fund.

C. CUSTOMER CHARGES

Equivalent Dwelling Units

Equivalent Dwelling Units (EDUs) are the basis for allocating annual PARC revenue requirements to customer groups. EDUs, by definition, equate to a one unit of customer demand (usage) of parks and recreation investment within the City of Tigard, whereas one unit is equivalent to the amount of parks and recreation investment needed to support one single family residential dwelling unit.

The methodology for determining EDUs takes into account most current (FY 2015-16) customer data that is maintained and updated periodically by the city as part of its street maintenance fee program. Supplemental data depicting building occupancy (using COSTAR quarterly reports for the Tigard subarea), employment (using confidential Oregon Employment Department data and local business interviews), and dwelling units (using city staff estimates) is compiled using sources noted in **the table below**.

Non-residential EDU conversion factors are derived from the adopted Tigard Parks and Trails SDC Methodology Report (adopted in 2015), with an EDU conversion factor that equates 1 dwelling unit to 15 jobs. Hence, the PMF methodology estimates employment for each commercial and industrial customer and divides it by 15 to calculate non-residential EDUs.

Single family residential EDUs are calculated for each customer using the following formula:

$$\text{Customer Accounts} \times 0.992 \text{ Occupancy Rate} = \text{EDUs}$$

Multifamily residential EDUs are calculated for each customer using the following formula:

$$\text{Dwelling Units} \times .942 \text{ Occupancy Rate} = \text{EDUs}$$

Commercial EDUs are calculated using the following formula:

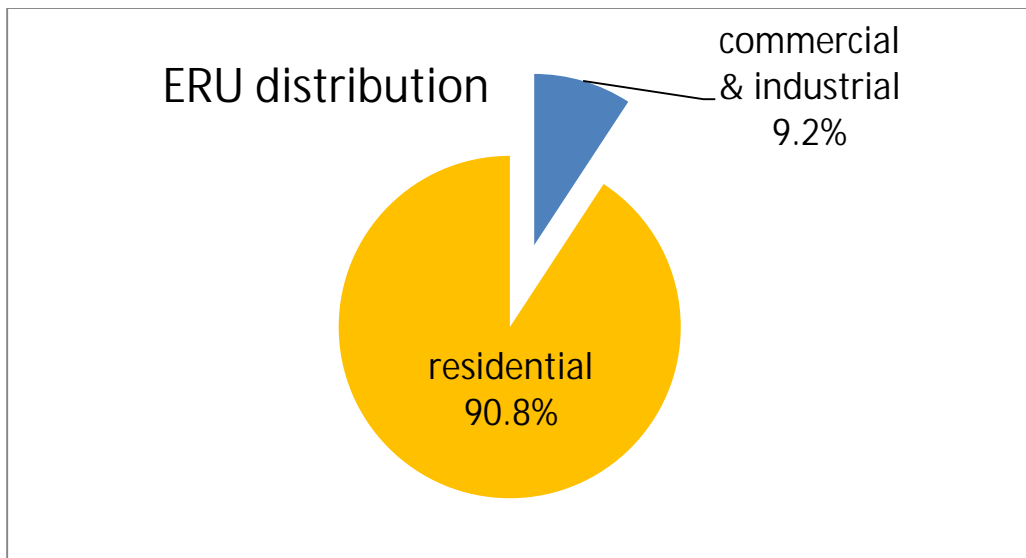
$$\frac{[\text{Parking Stalls} \times 0.76 \text{ Jobs Per Stall} \times .995 \text{ Occupancy Rate}]}{15 \text{ (EDU factor)}} = \text{EDUs}$$

Industrial EDUs are calculated using the following formula:

$$\frac{[\text{Parking Stalls} \times 1.19 \text{ Jobs Per Stall} \times 1.0 \text{ Occupancy Rate}]}{15 \text{ (EDU factor)}} = \text{EDUs}$$

As indicated in the **Exhibit 4.1**, the resulting distribution of EDUs, when combined by general customer type equates to a distribution of 90.8% to residential customers and 9.2% to non-residential (commercial and industrial) customers.

Exhibit 4.1: Distribution of Citywide EDUs



An annual EDU growth factor of 0.45% is assumed based on historic customer growth trends in Tigard's customer utility accounts. A summary of EDU calculations and projections can be found in **Appendix B**.

Customer Charges

The City shall charge each customer within the City of Tigard based on actual customer account information which is updated annually. Any occupied residential dwelling, multifamily and commercial or industrial customer is to be charged as follows:

Occupied single family residential PMF rates are calculated for each customer using the following formula:

$$\text{Dwelling Unit} \times \text{monthly PMFRate per EDU} = \text{Monthly charge}$$

Occupied multifamily customer PARC rates are calculated using the following formula:

$$\text{Dwelling Units} \times \text{monthly PMF Rate per EDU} = \text{Monthly charge}$$

Occupied commercial customer PARC rates are calculated using the following formula:

$$\frac{[\text{Parking Stalls} \times 0.76 \text{ Jobs Per Stall}]}{15 (\text{EDU factor})} \times \text{monthly PMF per EDU} = \text{Monthly charge}$$

Occupied industrial customer PARC rates are calculated using the following formula:

$$\frac{[\text{Parking Stalls} \times 1.19 \text{ Jobs Per Stall}]}{15 (\text{EDU factor})} \times \text{monthly PMF per EDU} = \text{Monthly charge}$$

D. PARKS UTILITY FEE SCENARIOS ANALYSIS

Each of the scenarios and their associated revenue requirement were analyzed to determine potential utility fees for the citizens and businesses of Tigard. An analysis of each scenario resulted in draft PMF rate calculations that were summarized and presented to the City at a Tigard City Council Work Session. The results of each scenario are shown in their respective appendices.

Exhibit 4.2: Parks Utility Fee Scenarios

Scenario Comparison	Annual Revenue per EDU FY 2016-17 (Year 1)	Equivalent Property Tax		
		Initial Five Year Rate ¹	Annual Mil rate, FY 2016-17	Annual Avg. Cost on \$240k home
1. Adopted Budget	\$98.17	\$8.18	0.4056	\$97.35
2. Deferred Maintenance	\$22.69	\$1.89	0.2149	\$51.59
3. Fully Fund CIP Projects	\$37.82	\$1.94	0.1563	\$37.50
4. Develop and Operate Current Lands	\$8.98	\$0.92	0.0371	\$8.91
5. Develop and Operate New Lands	\$3.73	\$0.59	0.0154	\$3.70
6. Develop Recreation Programs	\$6.75	\$1.39	0.0279	\$6.69
7. Special Community Assets	\$8.89	\$0.79	0.0367	\$8.82
Total	\$187.03	\$15.70	0.8940	\$214.56

*Residential and Non-Residential EDUs are Charged the same amount per EDU.

¹Note that five year rate may cause a revenue deficiency in the first years, if expenditures in early years are higher than later years.

** Total Assessed Value in City of Tigard: \$5,838,019,224

** Average Home Assessed Value:: \$240,000

** Average annual collection factor: 94%

Source: Compiled by FCS GROUP.

D. RECOMMENDED RATE SCENARIO

The recommended initial PMF rate is intended to address the current budgeted funding requirements for parks and deferred parks maintenance costs. Using the detailed assumptions provided in the Appendix, the annual revenue requirement over the next five years (FY 2016-17 to FY 2020-21) is projected to include \$2,226,001 in parks budget and \$514,457 in deferred maintenance for a total initial year revenue requirement of \$2,720,458.

In order to smooth out the PMF rates, it is recommended that the initial fee be based on the projected parks budget and the five year average revenue requirement for deferred maintenance. The resulting figure will be allocated among the customer groups. It is further recommended that the annual escalation rate be applied starting in year two. An annual escalation of 4.26% is recommended using the assumptions shown in **Exhibit 4.3**.

Exhibit 4.3: PMF Escalation Rates

Parks Utility Rate Indices Years 1-5		
Year of Implementation	Annual Rate	Weights
Personnel	4.80%	0.6
Services/Utilities	3.00%	0.25
Materials/Internal Services	4.20%	0.15
Weighted Average	4.26%	

Source: City of Tigard and FCS GROUP; based on estimated expenditures.

The resulting Tigard PMF rates are shown below in **Exhibit 4.4**. Initial monthly PMF rates would be \$10.07 per customer, and increase by approximately 4 percent annually. This charge should be sufficient to generate an annual average revenue amount of \$2,740,458 in FY 2016-17 and \$3,239,691 in FY 2020-21.

Exhibit 4.4: Tigard PMF Rates for Recommended Scenario: Parks Budget plus Deferred Maintenance

Average Revenue Requirement with 5-Year Smoothing of Deferred Maintenance	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21
Parks Budget	\$ 2,226,001	\$ 2,320,699	\$ 2,419,753	\$ 2,523,379	\$ 2,631,809
Deferred Maintenance*	\$ 514,457	\$ 536,372	\$ 559,222	\$ 583,045	\$ 607,883
Total expenditures	\$ 2,740,458	\$ 2,857,072	\$ 2,978,975	\$ 3,106,424	\$ 3,239,691
Allocated costs					
Residential allocation	\$ 2,487,186	\$ 2,593,022	\$ 2,703,659	\$ 2,819,330	\$ 2,940,280
Non-residential allocation	253,272	264,049	275,316	287,094	299,411
Total expenditures	\$ 2,740,458	\$ 2,857,072	\$ 2,978,975	\$ 3,106,424	\$ 3,239,691
EDUs: 5-Year Projections					
Residential	20,579	20,672	20,765	20,858	20,952
Non-Residential	2,096	2,105	2,114	2,124	2,134
Total	22,675	22,777	22,879	22,982	23,086
Rate Calculation: 5-Year Projections (nominal dollars)					
Required annual revenue per EDU					
Residential	\$ 120.86	\$ 125.44	\$ 130.20	\$ 135.17	\$ 140.33
Non-residential	\$ 120.86	\$ 125.44	\$ 130.20	\$ 135.17	\$ 140.33
Monthly rate per EDU					
Residential	\$ 10.07	\$ 10.45	\$ 10.85	\$ 11.26	\$ 11.69
Non-residential	\$ 10.07	\$ 10.45	\$ 10.85	\$ 11.26	\$ 11.69
* assumes escalation rate of 4.26% on deferred maintenance avg. revenue requirement.					

In the sensitivity analysis, the PMF is adjusted downwards to reflect a policy that the fee be used exclusively for parks maintenance only. In this scenario, the annual revenue requirement is reduced by \$184,563 to exclude the annual amount of funds currently expended on recreation facilities and programs. This results in a 74 cent per month per EDU reduction. Hence, the initial PMF would be \$9.33 instead of \$10.07, and subsequent year rates would comport with such a reduction in charges.

SECTION V: RATE POLICIES

Parks revenues at current levels are not sufficient to fund ongoing maintenance needs, much less identified parks priorities and the development of parks on city-owned land. Seven scenarios were evaluated for the parks system based on services and activities that Tigard has identified as priorities for the parks department.

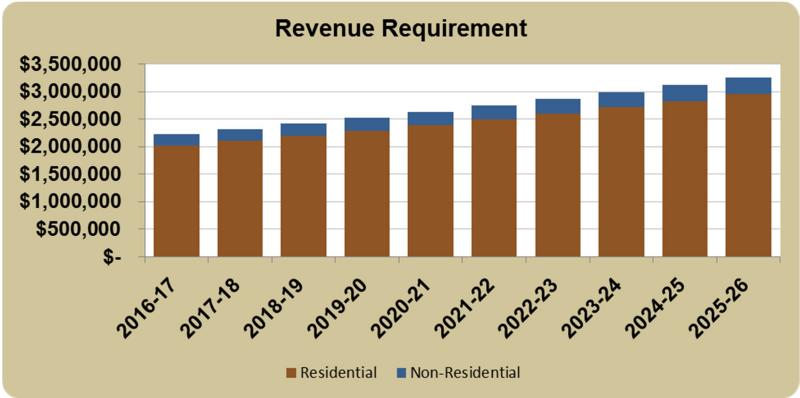
Recommendations of this study include:

- ◆ The recommended initial PMF rate would be set at a level to fund the existing annual parks budget and identified deferred parks maintenance.
- ◆ The Parks Fund should establish a minimum operating reserve that equates to 90-days of expenditures.
- ◆ The City should provide a rate policy that establishes an annual reserve for low income assistance. Based on experience by the City of Tigard with its water rates, an initial annual reserve fund balance of \$25,000 should be established. The city would utilize this fund to provide assistance to individuals and families within the City of Tigard if they meet the certain income parameters. Eligibility is to be determined by St. Vincent de Paul (city partner) using the U.S. Department of Housing and Urban Development income criteria for utility assistance. Once this fund is established, a share of each year's PMF revenue should be transferred into it to maintain a minimum beginning year fund balance of \$25,000.
- ◆ As the City considers acquiring or developing new land for future parks, it shall consider potential impacts on PMF expenditures and revenue requirements, and accordingly make annual adjustments to the PMF rates.
- ◆ The City should adopt a rate policy that establishes an annual escalation rate based on city cost experience or at an annual rate of at least 4 percent.
- ◆ The City shall revisit the study findings during the budget cycle to check that the assumptions used are still appropriate and that no significant changes have occurred that would alter the results of the rate methodology. The City should continue to monitor the financial status of the parks utility, adjusting the parks utility fee rate strategy as needed.

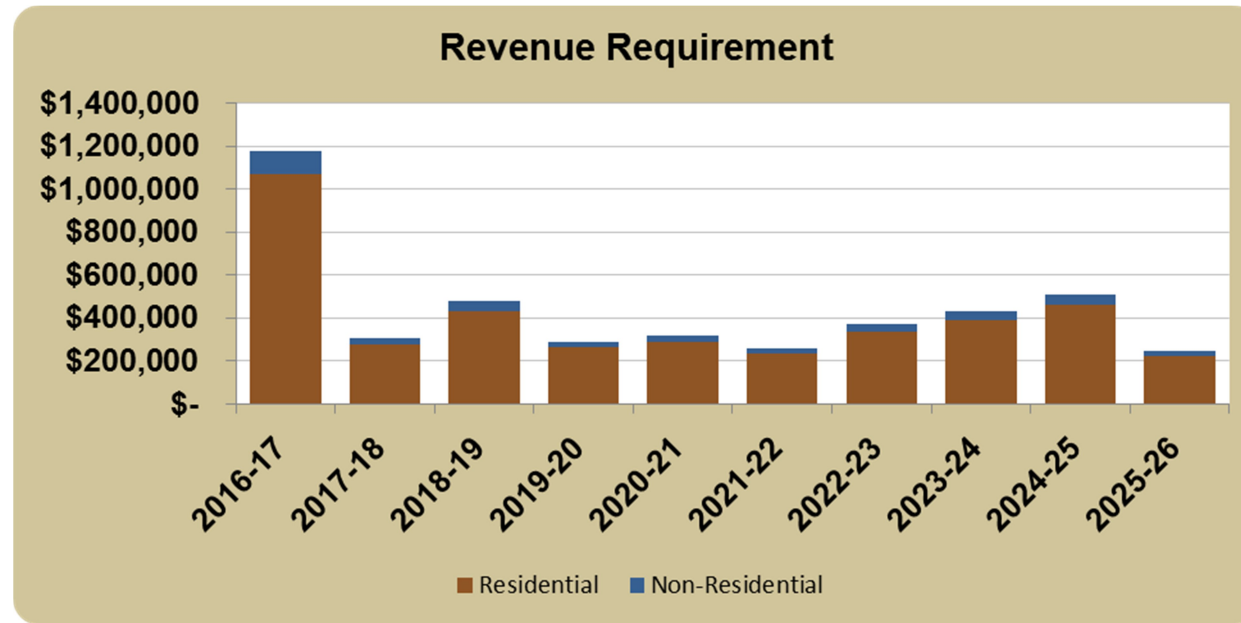
TECHNICAL APPENDIX

APPENDIX A: REVENUE REQUIREMENTS

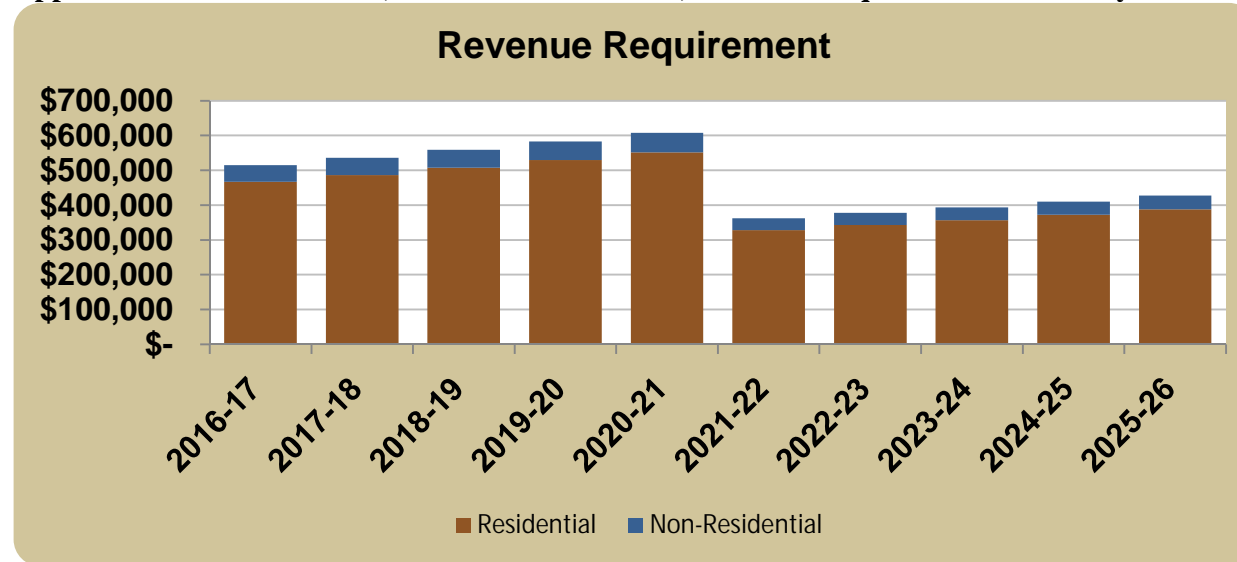
Appendix A1: Scenario 1 (Adopted Budget) Revenue Requirement



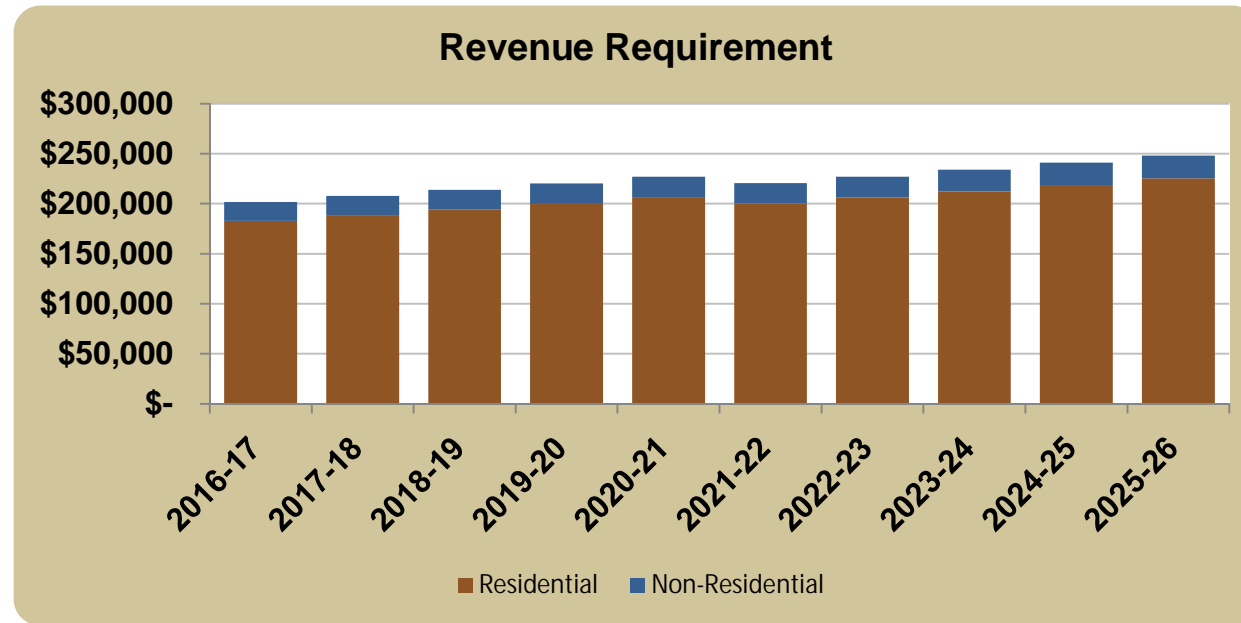
Revenue Requirement: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Adjusted cost scenario:										
Adopted Budget	\$ 2,226,001	\$ 2,320,699	\$ 2,419,753	\$ 2,523,379	\$ 2,631,809	\$ 2,745,283	\$ 2,864,056	\$ 2,988,398	\$ 3,118,592	\$ 3,254,938
Manual adjustments	-	-	-	-	-	-	-	-	-	-
Total expenditures	\$ 2,226,001	\$ 2,320,699	\$ 2,419,753	\$ 2,523,379	\$ 2,631,809	\$ 2,745,283	\$ 2,864,056	\$ 2,988,398	\$ 3,118,592	\$ 3,254,938
Allocated costs										
Residential allocation	\$ 2,020,275	\$ 2,106,221	\$ 2,196,120	\$ 2,290,170	\$ 2,388,578	\$ 2,491,565	\$ 2,599,361	\$ 2,712,212	\$ 2,830,373	\$ 2,954,118
Non-residential allocation	205,726	214,478	223,632	233,210	243,231	253,718	264,695	276,186	288,219	300,820
Total expenditures	\$ 2,226,001	\$ 2,320,699	\$ 2,419,753	\$ 2,523,379	\$ 2,631,809	\$ 2,745,283	\$ 2,864,056	\$ 2,988,398	\$ 3,118,592	\$ 3,254,938

Appendix A2-A: Scenario 2 (Deferred Maintenance) Revenue Requirement

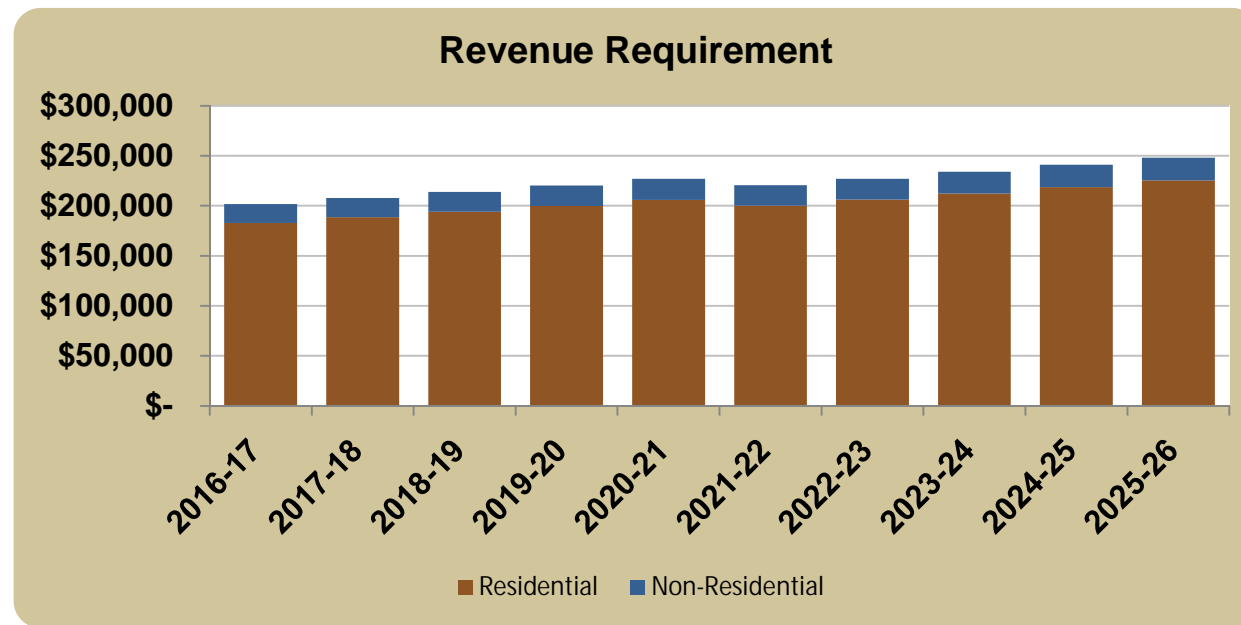
Revenue Requirement: 10-Year Projections		Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Adjusted cost scenario:											
Deferred Maintenance		\$ 1,179,539	\$ 306,463	\$ 476,641	\$ 290,388	\$ 319,251	\$ 255,309	\$ 370,340	\$ 431,111	\$ 508,687	\$ 244,343
Manual adjustments		-	-	-	-	-	-	-	-	-	-
Total expenditures		\$ 1,179,539	\$ 306,463	\$ 476,641	\$ 290,388	\$ 319,251	\$ 255,309	\$ 370,340	\$ 431,111	\$ 508,687	\$ 244,343
Allocated costs											
Residential allocation		\$ 1,070,527	\$ 278,140	\$ 432,590	\$ 263,551	\$ 289,746	\$ 231,714	\$ 336,113	\$ 391,268	\$ 461,675	\$ 221,761
Non-residential allocation		109,013	28,323	44,051	26,838	29,505	23,596	34,227	39,843	47,013	22,582
Total expenditures		\$ 1,179,539	\$ 306,463	\$ 476,641	\$ 290,388	\$ 319,251	\$ 255,309	\$ 370,340	\$ 431,111	\$ 508,687	\$ 244,343

Appendix A2-B: Scenario 2 (Deferred Maintenance) Revenue Requirement with five year smoothing


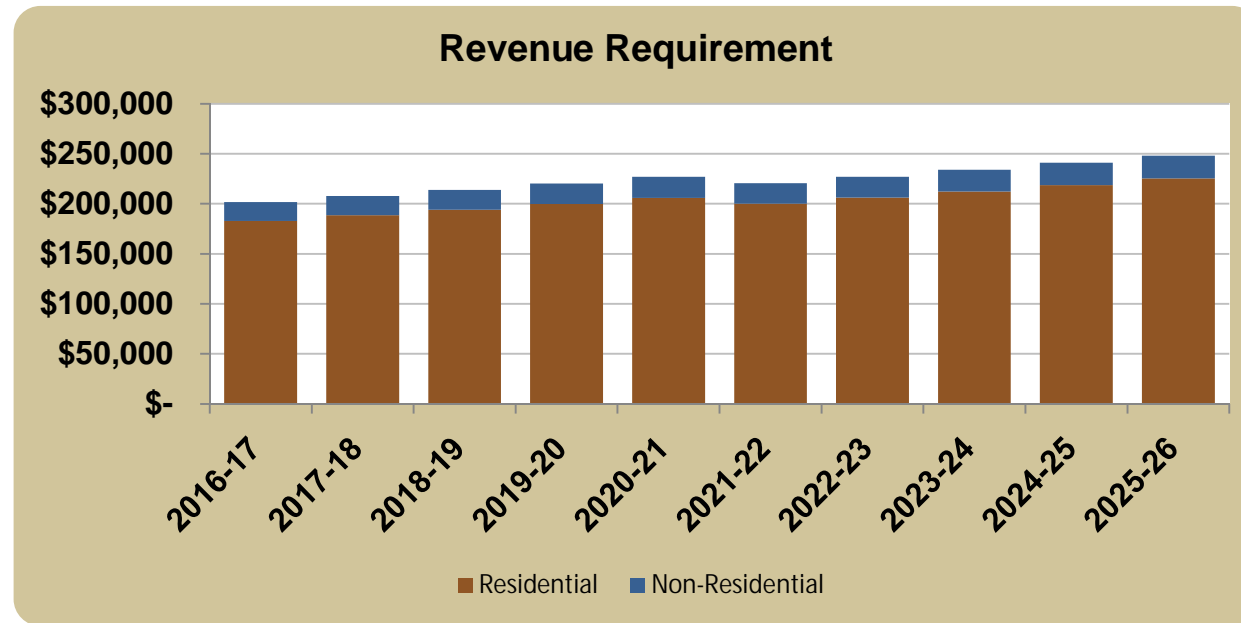
Revenue Requirement: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Adjusted cost scenario:										
Deferred Maintenance	\$ 514,457	\$ 536,372	\$ 559,222	\$ 583,045	\$ 607,883	\$ 361,958	\$ 377,378	\$ 393,454	\$ 410,215	\$ 427,690
Manual adjustments	-	-	-	-	-	-	-	-	-	-
Total expenditures	\$ 514,457	\$ 536,372	\$ 559,222	\$ 583,045	\$ 607,883	\$ 361,958	\$ 377,378	\$ 393,454	\$ 410,215	\$ 427,690
Allocated costs										
Residential allocation	\$ 466,911	\$ 486,801	\$ 507,539	\$ 529,160	\$ 551,702	\$ 328,506	\$ 342,500	\$ 357,091	\$ 372,303	\$ 388,163
Non-residential allocation	47,546	49,571	51,683	53,885	56,180	33,452	34,877	36,363	37,912	39,527
Total expenditures	\$ 514,457	\$ 536,372	\$ 559,222	\$ 583,045	\$ 607,883	\$ 361,958	\$ 377,378	\$ 393,454	\$ 410,215	\$ 427,690

Appendix A3: Scenario 3 (Fully Fund CIP Projects) Revenue Requirement

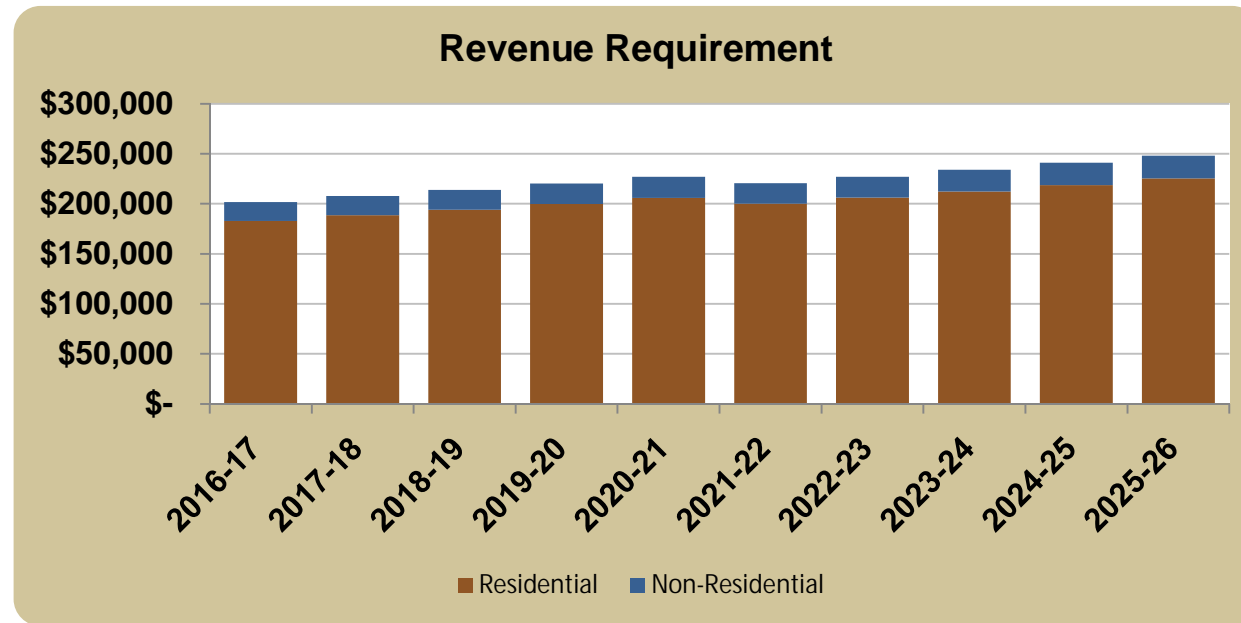
Revenue Requirement: 10-Year Projections		Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Adjusted cost scenario:											
Fully Fund CIP Projects		\$ 857,500	\$ 604,150	\$ 1,174,500	\$ -	\$ -	\$ 550,955	\$ 575,748	\$ 601,657	\$ 628,732	\$ 657,025
Manual adjustments		-	-	-	-	-	-	-	-	-	-
Total expenditures		\$ 857,500	\$ 604,150	\$ 1,174,500	\$ -	\$ -	\$ 550,955	\$ 575,748	\$ 601,657	\$ 628,732	\$ 657,025
Allocated costs											
Residential allocation		\$ 778,250	\$ 548,315	\$ 1,065,953	\$ -	\$ -	\$ 500,036	\$ 522,538	\$ 546,052	\$ 570,624	\$ 596,303
Non-residential allocation		79,250	55,835	108,547	-	-	50,919	53,210	55,605	58,107	60,722
Total expenditures		\$ 857,500	\$ 604,150	\$ 1,174,500	\$ -	\$ -	\$ 550,955	\$ 575,748	\$ 601,657	\$ 628,732	\$ 657,025

Appendix A4: Scenario 4 (Develop Current Land) Revenue Requirement

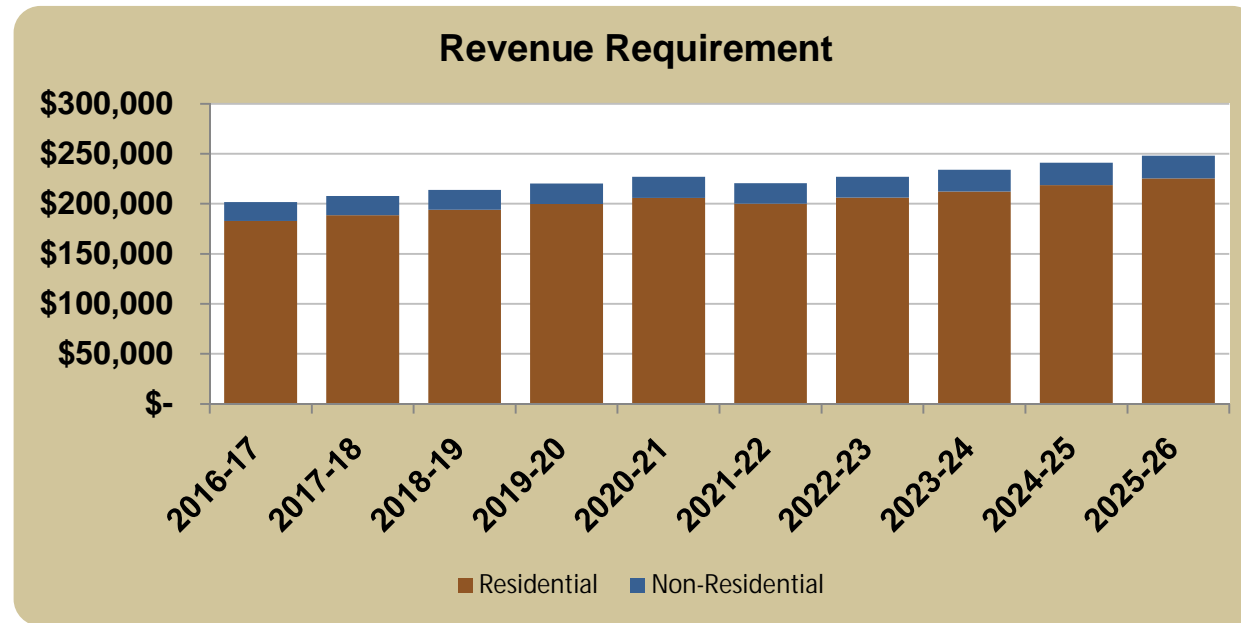
Revenue Requirement: 10-Year Projections											
	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26	Fiscal Year 2025-26
Adjusted cost scenario:											
Develop Current Land	\$ 203,624	\$ 225,903	\$ 249,379	\$ 274,105	\$ 300,136	\$ 327,532	\$ 356,353	\$ 386,662	\$ 418,524	\$ 452,008	
Manual adjustments	-	-	-	-	-	-	-	-	-	-	-
Total expenditures	\$ 203,624	\$ 225,903	\$ 249,379	\$ 274,105	\$ 300,136	\$ 327,532	\$ 356,353	\$ 386,662	\$ 418,524	\$ 452,008	
Allocated costs											
Residential allocation	\$ 184,805	\$ 205,025	\$ 226,331	\$ 248,772	\$ 272,398	\$ 297,262	\$ 323,419	\$ 350,927	\$ 379,844	\$ 410,234	
Non-residential allocation	18,819	20,878	23,047	25,333	27,738	30,270	32,934	35,735	38,680	41,774	
Total expenditures	\$ 203,624	\$ 225,903	\$ 249,379	\$ 274,105	\$ 300,136	\$ 327,532	\$ 356,353	\$ 386,662	\$ 418,524	\$ 452,008	

Appendix A5: Scenario 5 (Develop New Land) Revenue Requirement

Revenue Requirement: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Adjusted cost scenario:										
Develop New Land	\$ 84,687	\$ 120,155	\$ 157,687	\$ 197,376	\$ 239,316	\$ 283,610	\$ 330,360	\$ 379,674	\$ 431,666	\$ 486,452
Manual adjustments	-	-	-	-	-	-	-	-	-	-
Total expenditures	\$ 84,687	\$ 120,155	\$ 157,687	\$ 197,376	\$ 239,316	\$ 283,610	\$ 330,360	\$ 379,674	\$ 431,666	\$ 486,452
Allocated costs										
Residential allocation	\$ 76,861	\$ 109,051	\$ 143,114	\$ 179,134	\$ 217,199	\$ 257,399	\$ 299,828	\$ 344,585	\$ 391,772	\$ 441,494
Non-residential allocation	7,827	11,105	14,573	18,241	22,118	26,211	30,532	35,089	39,894	44,958
Total expenditures	\$ 84,687	\$ 120,155	\$ 157,687	\$ 197,376	\$ 239,316	\$ 283,610	\$ 330,360	\$ 379,674	\$ 431,666	\$ 486,452

Appendix A6: Scenario 6 (Recreational Programs) Revenue Requirement

Revenue Requirement: 10-Year Projections		Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Adjusted cost scenario:											
Recreational Programs		\$ 153,076	\$ 182,040	\$ 425,845	\$ 519,180	\$ 617,733	\$ 392,478	\$ 405,820	\$ 419,522	\$ 433,592	\$ 448,024
Manual adjustments		-	-	-	-	-	-	-	-	-	-
Total expenditures		\$ 153,076	\$ 182,040	\$ 425,845	\$ 519,180	\$ 617,733	\$ 392,478	\$ 405,820	\$ 419,522	\$ 433,592	\$ 448,024
Allocated costs											
Residential allocation		\$ 138,929	\$ 165,216	\$ 386,488	\$ 471,198	\$ 560,643	\$ 356,205	\$ 368,314	\$ 380,750	\$ 393,519	\$ 406,618
Non-residential allocation		14,147	16,824	39,356	47,982	57,091	36,273	37,506	38,772	40,072	41,406
Total expenditures		\$ 153,076	\$ 182,040	\$ 425,845	\$ 519,180	\$ 617,733	\$ 392,478	\$ 405,820	\$ 419,522	\$ 433,592	\$ 448,024

Appendix A7: Scenario 7 (Special Community Assets) Revenue Requirement

Revenue Requirement: 10-Year Projections		Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Adjusted cost scenario:											
Special Community Assets		\$ 201,627	\$ 207,676	\$ 213,906	\$ 220,323	\$ 226,933	\$ 220,515	\$ 227,131	\$ 233,945	\$ 240,963	\$ 248,192
Manual adjustments		-	-	-	-	-	-	-	-	-	-
Total expenditures		\$ 201,627	\$ 207,676	\$ 213,906	\$ 220,323	\$ 226,933	\$ 220,515	\$ 227,131	\$ 233,945	\$ 240,963	\$ 248,192
Allocated costs											
Residential allocation		\$ 182,992	\$ 188,482	\$ 194,137	\$ 199,961	\$ 205,960	\$ 200,136	\$ 206,140	\$ 212,324	\$ 218,694	\$ 225,254
Non-residential allocation		18,634	19,193	19,769	20,362	20,973	20,380	20,991	21,621	22,270	22,938
Total expenditures		\$ 201,627	\$ 207,676	\$ 213,906	\$ 220,323	\$ 226,933	\$ 220,515	\$ 227,131	\$ 233,945	\$ 240,963	\$ 248,192

APPENDIX B: EQUIVALENT DWELLING UNIT CALCULATIONS AND PROJECTIONS

Appendix B1: Parks EDU Assumptions and Customer Statistics, City of Tigard (FY 2015-16)

Customer Group	Accounts ¹	Parking Stalls ¹	Jobs Per Stall ²	DUs per Stall ³	Occupancy Factor ¹	EDU Factor ⁴	EDUs ⁴
Commercial	916	40,309	0.76		0.995	15	2,029
Industrial	13	718	1.19		1.000	15	57
Multifamily	587	7,433		1.05	0.942	1.0	7,373
Single Family	13,222	13,222		1.00	0.992	1.0	13,114
TOTAL							
Commercial & Industrial	929						2,086
Residential	13,809						20,487

Notes

¹ Derived from City of Tigard, Street Maintenance Fee customer data.

² Calculated based on current estimated jobs (Oregon Employment Department and local business survey data for Tigard).

³ Calculated based on current estimated dwellings (American Community Survey, 2013 data for City of Tigard)

⁴ EDU = equivalent dwelling unit. **Note:** Non-residential ERUs calculated by dividing the number of jobs in Tigard (40,746 based on data gathered for the parks SDC methodology) by a conversion factor of 15 employees per EDU (based on calculations in the Tigard Parks and Trails SDC Methodology Report, 2015).

Compiled by FCS GROUP.

Appendix B2: 10-Year EDU Projections (All Scenarios)

EDUs: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Residential, single-family	13,173	13,232	13,292	13,352	13,412	13,472	13,533	13,594	13,655	13,716
Residential, multi-family	7,406	7,440	7,473	7,507	7,540	7,574	7,608	7,643	7,677	7,712
Non-residential, commercial	2,038	2,048	2,057	2,066	2,075	2,085	2,094	2,103	2,113	2,122
Non-residential, industrial	57	58	58	58	58	59	59	59	59	60
Total	22,675	22,777	22,879	22,982	23,086	23,190	23,294	23,399	23,504	23,610

APPENDIX C: 10-YEAR RATE PROJECTION

Appendix C1: 10-Year Rate Projections

Rate Calculation: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Required annual revenue per EDU										
Residential	\$ 98.17	\$ 101.89	\$ 105.76	\$ 109.80	\$ 114.00	\$ 118.38	\$ 122.95	\$ 127.72	\$ 132.68	\$ 137.86
Non-residential	\$ 98.17	\$ 101.89	\$ 105.76	\$ 109.80	\$ 114.00	\$ 118.38	\$ 122.95	\$ 127.72	\$ 132.68	\$ 137.86
Monthly rate per EDU										
Residential	\$ 8.18	\$ 8.49	\$ 8.81	\$ 9.15	\$ 9.50	\$ 9.87	\$ 10.25	\$ 10.64	\$ 11.06	\$ 11.49
Non-residential	\$ 8.18	\$ 8.49	\$ 8.81	\$ 9.15	\$ 9.50	\$ 9.87	\$ 10.25	\$ 10.64	\$ 11.06	\$ 11.49
Two-year monthly rate per EDU										
Residential	\$ 8.35	\$ 8.35	\$ 9.00	\$ 9.00	\$ 9.70	\$ 9.70	\$ 10.47	\$ 10.47	\$ 11.30	\$ 11.30
Non-residential	\$ 8.35	\$ 8.35	\$ 9.00	\$ 9.00	\$ 9.70	\$ 9.70	\$ 10.47	\$ 10.47	\$ 11.30	\$ 11.30
Five-year monthly rate per EDU										
Residential	\$ 8.91	\$ 8.91	\$ 8.91	\$ 8.91	\$ 8.91	\$ 10.76	\$ 10.76	\$ 10.76	\$ 10.76	\$ 10.76
Non-residential	\$ 8.91	\$ 8.91	\$ 8.91	\$ 8.91	\$ 8.91	\$ 10.76	\$ 10.76	\$ 10.76	\$ 10.76	\$ 10.76
Ten-year monthly rate per EDU										
Residential	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96
Non-residential	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96	\$ 9.96

Appendix C2: Scenario 2 (Deferred Maintenance) 10-Year Rate Projections

Rate Calculation: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Required annual revenue per EDU										
Residential	\$ 52.02	\$ 13.46	\$ 20.83	\$ 12.64	\$ 13.83	\$ 11.01	\$ 15.90	\$ 18.42	\$ 21.64	\$ 10.35
Non-residential	\$ 52.02	\$ 13.46	\$ 20.83	\$ 12.64	\$ 13.83	\$ 11.01	\$ 15.90	\$ 18.42	\$ 21.64	\$ 10.35
Monthly rate per EDU										
Residential	\$ 4.33	\$ 1.12	\$ 1.74	\$ 1.05	\$ 1.15	\$ 0.92	\$ 1.32	\$ 1.54	\$ 1.80	\$ 0.86
Non-residential	\$ 4.33	\$ 1.12	\$ 1.74	\$ 1.05	\$ 1.15	\$ 0.92	\$ 1.32	\$ 1.54	\$ 1.80	\$ 0.86
Two-year monthly rate per EDU										
Residential	\$ 2.73	\$ 2.73	\$ 1.40	\$ 1.40	\$ 1.04	\$ 1.04	\$ 1.43	\$ 1.43	\$ 1.33	\$ 1.33
Non-residential	\$ 2.73	\$ 2.73	\$ 1.40	\$ 1.40	\$ 1.04	\$ 1.04	\$ 1.43	\$ 1.43	\$ 1.33	\$ 1.33
Five-year monthly rate per EDU										
Residential	\$ 1.89	\$ 1.89	\$ 1.89	\$ 1.89	\$ 1.89	\$ 1.30	\$ 1.30	\$ 1.30	\$ 1.30	\$ 1.30
Non-residential	\$ 1.89	\$ 1.89	\$ 1.89	\$ 1.89	\$ 1.89	\$ 1.30	\$ 1.30	\$ 1.30	\$ 1.30	\$ 1.30
Ten-year monthly rate per EDU										
Residential	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61
Non-residential	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61	\$ 1.61

Appendix C3: Scenario 3 (Fully Fund CIP Projects) 10-Year Rate Projections

Rate Calculation: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Required annual revenue per EDU										
Residential	\$ 37.82	\$ 26.52	\$ 51.33	\$ -	\$ -	\$ 23.76	\$ 24.72	\$ 25.71	\$ 26.75	\$ 27.83
Non-residential	\$ 37.82	\$ 26.52	\$ 51.33	\$ -	\$ -	\$ 23.76	\$ 24.72	\$ 25.71	\$ 26.75	\$ 27.83
Monthly rate per EDU										
Residential	\$ 3.15	\$ 2.21	\$ 4.28	\$ -	\$ -	\$ 1.98	\$ 2.06	\$ 2.14	\$ 2.23	\$ 2.32
Non-residential	\$ 3.15	\$ 2.21	\$ 4.28	\$ -	\$ -	\$ 1.98	\$ 2.06	\$ 2.14	\$ 2.23	\$ 2.32
Two-year monthly rate per EDU										
Residential	\$ 2.69	\$ 2.69	\$ 2.14	\$ 2.14	\$ 0.99	\$ 0.99	\$ 2.11	\$ 2.11	\$ 2.28	\$ 2.28
Non-residential	\$ 2.69	\$ 2.69	\$ 2.14	\$ 2.14	\$ 0.99	\$ 0.99	\$ 2.11	\$ 2.11	\$ 2.28	\$ 2.28
Five-year monthly rate per EDU										
Residential	\$ 1.94	\$ 1.94	\$ 1.94	\$ 1.94	\$ 1.94	\$ 2.17	\$ 2.17	\$ 2.17	\$ 2.17	\$ 2.17
Non-residential	\$ 1.94	\$ 1.94	\$ 1.94	\$ 1.94	\$ 1.94	\$ 2.17	\$ 2.17	\$ 2.17	\$ 2.17	\$ 2.17
Ten-year monthly rate per EDU										
Residential	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08
Non-residential	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08

Appendix C4: Scenario 4 (Develop Current Land) 10-Year Rate Projections

Rate Calculation: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Required annual revenue per EDU										
Residential	\$ 8.98	\$ 9.92	\$ 10.90	\$ 11.93	\$ 13.00	\$ 14.12	\$ 15.30	\$ 16.52	\$ 17.81	\$ 19.14
Non-residential	\$ 8.98	\$ 9.92	\$ 10.90	\$ 11.93	\$ 13.00	\$ 14.12	\$ 15.30	\$ 16.52	\$ 17.81	\$ 19.14
Monthly rate per EDU										
Residential	\$ 0.75	\$ 0.83	\$ 0.91	\$ 0.99	\$ 1.08	\$ 1.18	\$ 1.27	\$ 1.38	\$ 1.48	\$ 1.60
Non-residential	\$ 0.75	\$ 0.83	\$ 0.91	\$ 0.99	\$ 1.08	\$ 1.18	\$ 1.27	\$ 1.38	\$ 1.48	\$ 1.60
Two-year monthly rate per EDU										
Residential	\$ 0.79	\$ 0.79	\$ 0.95	\$ 0.95	\$ 1.13	\$ 1.13	\$ 1.33	\$ 1.33	\$ 1.54	\$ 1.54
Non-residential	\$ 0.79	\$ 0.79	\$ 0.95	\$ 0.95	\$ 1.13	\$ 1.13	\$ 1.33	\$ 1.33	\$ 1.54	\$ 1.54
Five-year monthly rate per EDU										
Residential	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92	\$ 1.40	\$ 1.40	\$ 1.40	\$ 1.40	\$ 1.40
Non-residential	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92	\$ 1.40	\$ 1.40	\$ 1.40	\$ 1.40	\$ 1.40
Ten-year monthly rate per EDU										
Residential	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17
Non-residential	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17	\$ 1.17

Appendix C5: Scenario 5 (Develop New Land) 10-Year Rate Projections

Rate Calculation: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Required annual revenue per EDU										
Residential	\$ 3.73	\$ 5.28	\$ 6.89	\$ 8.59	\$ 10.37	\$ 12.23	\$ 14.18	\$ 16.23	\$ 18.37	\$ 20.60
Non-residential	\$ 3.73	\$ 5.28	\$ 6.89	\$ 8.59	\$ 10.37	\$ 12.23	\$ 14.18	\$ 16.23	\$ 18.37	\$ 20.60
Monthly rate per EDU										
Residential	\$ 0.31	\$ 0.44	\$ 0.57	\$ 0.72	\$ 0.86	\$ 1.02	\$ 1.18	\$ 1.35	\$ 1.53	\$ 1.72
Non-residential	\$ 0.31	\$ 0.44	\$ 0.57	\$ 0.72	\$ 0.86	\$ 1.02	\$ 1.18	\$ 1.35	\$ 1.53	\$ 1.72
Two-year monthly rate per EDU										
Residential	\$ 0.38	\$ 0.38	\$ 0.65	\$ 0.65	\$ 0.94	\$ 0.94	\$ 1.27	\$ 1.27	\$ 1.63	\$ 1.63
Non-residential	\$ 0.38	\$ 0.38	\$ 0.65	\$ 0.65	\$ 0.94	\$ 0.94	\$ 1.27	\$ 1.27	\$ 1.63	\$ 1.63
Five-year monthly rate per EDU										
Residential	\$ 0.59	\$ 0.59	\$ 0.59	\$ 0.59	\$ 0.59	\$ 1.37	\$ 1.37	\$ 1.37	\$ 1.37	\$ 1.37
Non-residential	\$ 0.59	\$ 0.59	\$ 0.59	\$ 0.59	\$ 0.59	\$ 1.37	\$ 1.37	\$ 1.37	\$ 1.37	\$ 1.37
Ten-year monthly rate per EDU										
Residential	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
Non-residential	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00

Appendix C6: Scenario 6 (Recreational Programs) 10-Year Rate Projections

Rate Calculation: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Required annual revenue per EDU										
Residential	\$ 6.75	\$ 7.99	\$ 18.61	\$ 22.59	\$ 26.76	\$ 16.92	\$ 17.42	\$ 17.93	\$ 18.45	\$ 18.98
Non-residential	\$ 6.75	\$ 7.99	\$ 18.61	\$ 22.59	\$ 26.76	\$ 16.92	\$ 17.42	\$ 17.93	\$ 18.45	\$ 18.98
Monthly rate per EDU										
Residential	\$ 0.56	\$ 0.67	\$ 1.55	\$ 1.88	\$ 2.23	\$ 1.41	\$ 1.45	\$ 1.49	\$ 1.54	\$ 1.58
Non-residential	\$ 0.56	\$ 0.67	\$ 1.55	\$ 1.88	\$ 2.23	\$ 1.41	\$ 1.45	\$ 1.49	\$ 1.54	\$ 1.58
Two-year monthly rate per EDU										
Residential	\$ 0.62	\$ 0.62	\$ 1.72	\$ 1.72	\$ 1.82	\$ 1.82	\$ 1.48	\$ 1.48	\$ 1.56	\$ 1.56
Non-residential	\$ 0.62	\$ 0.62	\$ 1.72	\$ 1.72	\$ 1.82	\$ 1.82	\$ 1.48	\$ 1.48	\$ 1.56	\$ 1.56
Five-year monthly rate per EDU										
Residential	\$ 1.39	\$ 1.39	\$ 1.39	\$ 1.39	\$ 1.39	\$ 1.51	\$ 1.51	\$ 1.51	\$ 1.51	\$ 1.51
Non-residential	\$ 1.39	\$ 1.39	\$ 1.39	\$ 1.39	\$ 1.39	\$ 1.51	\$ 1.51	\$ 1.51	\$ 1.51	\$ 1.51
Ten-year monthly rate per EDU										
Residential	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47
Non-residential	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47	\$ 1.47

Appendix C7: Scenario 7 (Special Community Assets) 10-Year Rate Projections

Rate Calculation: 10-Year Projections	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26
Required annual revenue per EDU										
Residential	\$ 8.89	\$ 9.12	\$ 9.35	\$ 9.59	\$ 9.83	\$ 9.51	\$ 9.75	\$ 10.00	\$ 10.25	\$ 10.51
Non-residential	\$ 8.89	\$ 9.12	\$ 9.35	\$ 9.59	\$ 9.83	\$ 9.51	\$ 9.75	\$ 10.00	\$ 10.25	\$ 10.51
Monthly rate per EDU										
Residential	\$ 0.74	\$ 0.76	\$ 0.78	\$ 0.80	\$ 0.82	\$ 0.79	\$ 0.81	\$ 0.83	\$ 0.85	\$ 0.88
Non-residential	\$ 0.74	\$ 0.76	\$ 0.78	\$ 0.80	\$ 0.82	\$ 0.79	\$ 0.81	\$ 0.83	\$ 0.85	\$ 0.88
Two-year monthly rate per EDU										
Residential	\$ 0.75	\$ 0.75	\$ 0.79	\$ 0.79	\$ 0.81	\$ 0.81	\$ 0.82	\$ 0.82	\$ 0.87	\$ 0.87
Non-residential	\$ 0.75	\$ 0.75	\$ 0.79	\$ 0.79	\$ 0.81	\$ 0.81	\$ 0.82	\$ 0.82	\$ 0.87	\$ 0.87
Five-year monthly rate per EDU										
Residential	\$ 0.79	\$ 0.79	\$ 0.79	\$ 0.79	\$ 0.79	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.84
Non-residential	\$ 0.79	\$ 0.79	\$ 0.79	\$ 0.79	\$ 0.79	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.84
Ten-year monthly rate per EDU										
Residential	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82
Non-residential	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82

APPENDIX D: TIGARD PARKS UTILITY COST ASSUMPTIONS BY SCENARIO

Appendix D1: Scenario 2 (Deferred Maintenance) Associated Costs

2. Deferred Parks Maintenance	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		
	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Inflation Notes	Escalation
Year Needing Replacement	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26		
Parks Equipment	\$207,800	\$31,000	\$102,000	\$10,000	\$79,500	\$15,000	\$22,000	\$117,000	\$55,000	\$0	Materials & Services	3.00%
Parks Asset Inventory	\$602,300	\$35,000	\$138,500	\$25,000	\$25,000	\$25,000	\$95,000	\$42,000	\$137,000	\$0	Capital	4.50%
Parks Facilities Rent (depreciation)	\$31,751	\$31,751	\$31,751	\$31,751	\$31,751	\$31,751	\$31,751	\$31,751	\$31,751	\$31,751	Capital	4.50%
Parks Trails (low end estimate)	\$125,588	\$125,588	\$125,588	\$125,588	\$125,588	\$125,588	\$125,588	\$125,588	\$125,588	\$125,588	Capital	4.50%
Parks Vehicles Replacement	\$166,682	\$59,902	\$25,298	\$54,873	\$0	\$0	\$0	\$0	\$0	\$0	Materials & Services	3.00%
Total - Real Costs	\$1,134,121	\$283,241	\$423,137	\$247,212	\$261,839	\$197,339	\$274,339	\$316,339	\$349,339	\$157,339		
Total - Nominal Costs	\$1,179,539	\$306,463	\$476,641	\$290,388	\$319,251	\$255,309	\$370,340	\$431,111	\$508,687	\$244,343		
Nominal Average, Initial 5 Years	\$514,457											

Source: City of Tigard, compiled by FCS GROUP

Appendix D2: Scenario 3 (Fully Fund CIP Projects) Associated Costs

3. Identified Capital Improvement Projects (excludes bond proceeds and parks SDC funds)	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year		
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	Inflation	Inflation
CIP Expenses												
Internal Expenses	\$282,500	\$135,900	\$140,600	\$0	\$0							
External Expenses	\$3,410,000	\$3,100,250	\$1,433,900	\$150,000	\$150,000							
Total Expenses	\$3,692,500	\$3,236,150	\$1,574,500	\$150,000	\$150,000							
CIP Identified Revenues												
Bonds/SDCs	\$817,440	\$1,072,000	\$250,000	\$0	\$0							
Transfers from enterprise funds	\$97,560	\$0	\$0	\$0	\$0							
Transfers from transp CIP fund	\$0	\$0	\$1,174,500	\$0	\$0							
Regional Flexible Funds	\$1,670,000	\$1,410,000	\$0	\$0	\$0							
Transfers from parks capital fund	\$857,500	\$604,150	\$0	\$0	\$0							
Transfers from other funds (urban forestry)	\$250,000	\$150,000	\$150,000	\$150,000	\$150,000							
Transfers from other funds (general fund)	\$0	\$0	\$0	\$0	\$0							
Total Revenues	\$3,692,500	\$3,236,150	\$1,574,500	\$150,000	\$150,000							
Costs Included in the Utility Fee												
Transfers from Urban Forestry Fund	\$857,500	\$604,150	\$1,174,500	\$0	\$0						Capital	4.50%
Total - Real Costs	\$857,500	\$604,150	\$1,174,500	\$0	\$0	\$527,230	\$527,230	\$527,230	\$527,230	\$527,230		
Total - Nominal Costs	\$857,500	\$604,150	\$1,174,500	\$0	\$0	\$550,955	\$575,748	\$601,657	\$628,732	\$657,025		
Nominal Average Over Years	\$565,027											

Source: City of Tigard, compiled by FCS GROUP

Appendix D3: Scenario 4 (Develop Current Land) Associated Costs

4. Development of Current Parks Land Inventory	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year		
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	Inflation Notes	Inflation
Annual Capital Costs	\$182,490	\$182,490	\$182,490	\$182,490	\$182,490	\$182,490	\$182,490	\$182,490	\$182,490	\$182,490	Capital	4.50%
Annual O&M Costs	\$12,546	\$25,092	\$37,638	\$50,184	\$62,730	\$75,276	\$87,822	\$100,368	\$112,914	\$125,460	Materials & Services	3.00%
Total - Real Costs	\$195,036	\$207,582	\$220,128	\$232,674	\$245,220	\$257,766	\$270,312	\$282,858	\$295,404	\$307,950		
Total - Nominal Costs	\$203,624	\$225,903	\$249,379	\$274,105	\$300,136	\$327,532	\$356,353	\$386,662	\$418,524	\$452,008		
Nominal Average Over Years	\$319,423											

Source: City of Tigard, compiled by FCS GROUP

Note: This analysis excludes bond proceeds and parks SDC funds.

Appendix D4: Scenario 5 (Develop New Land) Associated Costs

5. Development of New Parks on Land Not Yet Acquired												
	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26	Inflation Notes	Inflation
Annual Capital Costs	\$51,194	\$51,194	\$51,194	\$51,194	\$51,194	\$51,194	\$51,194	\$51,194	\$51,194	\$51,194	Capital	4.50%
Annual O&M Costs	\$30,281	\$60,562	\$90,842	\$121,123	\$151,404	\$181,685	\$211,966	\$242,246	\$272,527	\$302,808	Materials & Services	3.00%
Total - Real Costs	\$81,475	\$111,756	\$142,037	\$172,318	\$202,598	\$232,879	\$263,160	\$293,441	\$323,722	\$354,002		
Total - Nominal Costs	\$84,687	\$120,155	\$157,687	\$197,376	\$239,316	\$283,610	\$330,360	\$379,674	\$431,666	\$486,452		
Nominal Average Over Years	\$271,098											

Source: City of Tigard, compiled by FCS GROUP

Note: This analysis excludes bond proceeds and parks SDC funds.

Appendix D5: Scenario 6 (Recreational Programs) Associated Costs

6. Introduction of Recreational Programs												
Year of Implementation	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26	Inflation Notes	Inflation
Recreation Staffing - 1 FTE first two years; 2 FTE in all following years	\$135,000	\$135,000	\$230,000	\$230,000	\$230,000						Personnel Services	4.00%
Professional Services - Recreation Guide	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000						Materials & Services	3.00%
Equipment & Technology - Online												
Reservation System	\$0	\$0	\$100,000	\$200,000	\$300,000						Materials & Services	3.00%
City Investment - Grants, Scholarships, and Pilot Programs												
Program Revenue	\$56,000 (\$63,300)	\$87,500 (\$72,750)	\$200,000 (\$165,000)	\$200,000 (\$195,000)	\$200,000 (\$225,000)						Materials & Services	3.00%
Total - Real Costs	\$147,700	\$169,750	\$385,000	\$455,000	\$525,000	\$336,490	\$336,490	\$336,490	\$336,490	\$336,490		
Total - Nominal Costs	\$153,076	\$182,040	\$425,845	\$519,180	\$617,733	\$392,478	\$405,820	\$419,522	\$433,592	\$448,024		
Nominal Average Over Years	\$399,731											

Source: City of Tigard, Recreation Program Study, March 2015; compiled by FCS GROUP

Appendix D6: Scenario 7 (Special Community Assets) Associated Costs

7. Inclusion of Special Community Assets												
	Fiscal Year 2016-17	Fiscal Year 2017-18	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Fiscal Year 2023-24	Fiscal Year 2024-25	Fiscal Year 2025-26	Inflation Notes	Inflation
Arts and Cultural Program Costs	\$95,754	\$95,754	\$95,754	\$95,754	\$95,754						Materials & Services	3.00%
Stormwater Program Costs	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000						Materials & Services	3.00%
Total - Real Costs	\$195,754	\$195,754	\$195,754	\$195,754	\$195,754	\$195,754	\$195,754	\$195,754	\$195,754	\$195,754		
Total - Nominal Costs	\$201,627	\$207,676	\$213,906	\$220,323	\$226,933	\$220,515	\$227,131	\$233,945	\$240,963	\$248,192		
Nominal Average Over Years	\$224,121											

Source: City of Tigard and FCS GROUP.

APPENDIX E: TIGARD PARKS UTILITY SCENARIO COST ASSUMPTIONS

Appendix E1: O&M current and estimated future costs

Estimated O/M Costs for Current & Future Park Development							
	Neighborhood & Pocket Parks	Community Parks	Linear Parks	Open Space	Trails	Total	Avg Net New Cost at end of each 5 year cycle
Operations and Maintenance Costs							
Costs per Acre	\$ 4,400	\$ 7,880	\$ 645	\$ 705	\$ 4,450		
Costs per Mile					\$ 10,900		
Cost per Park Type							
Current developed acres	53.0 ac	191.1 ac	23.1 ac	252.9 ac	4.6 ac	524.7	
Total O&M Costs	\$ 233,376	\$ 1,506,026	\$ 14,867	\$ 178,302	\$ 20,470	\$ 1,953,040	
Development of undeveloped parks and trails	23.0 ac	19.0 ac	0.0 ac	0.0 ac	0.0 ac	42.0	
Total O&M Costs	\$ 101,200	\$ 149,720	\$ -	\$ -	\$ -	\$ 250,920	\$ 62,730
Additional acres to acquire and develop	34.1 ac	42.1 ac	37.0 ac	66.1 ac	4.9 mi	184.2	
Total O&M Costs	\$ 149,821	\$ 331,753	\$ 23,892	\$ 46,631	\$ 53,519	\$ 605,616	\$ 151,404

Source: City of Tigard, compiled by Conservationtechnix; and FCS GROUP.

Existing Park Inventory (Acres) by Type & Development Level					
	Level 1	Level 2	Level 3	Level 4	Subtotal
Community	104.8	52.92	19.4		177.12
Neighborhood	18.86	29.12	9.43	2.77	60.18
Pocket	0.61				0.61
Open Space			102.14	178.37	280.51
Linear Park			5.13	17.92	23.05
Special Properties	18.15	0.13	0.18		18.46
Trails		4.6			4.6
Subtotal	142.42	86.77	136.28	199.06	564.53

Note: Level 1 is highest maintenance level; Level 4 is lowest

Source: City of Tigard, compiled by Conservationtechnix.

Estimated O/M Cost Percentages by Type & Development Level (Existing Inventory)		
By Development Level		
L1	62%	87%
L2	25%	
L3	7%	
L4	6%	
By Park Classification		
Community	72%	85%
Neighborhood	13%	
Pocket	0%	
Open Space	10%	
Linear Park	1%	
Special Properties	3%	
Trails	1%	

Estimated O/M Costs per Acre by Classification		
	Estimated	Rounded
Community	\$ 7,878	\$ 7,880
Neighborhood & Pocket	\$ 4,341	\$ 4,400
Open Space	\$ 705	\$ 705
Linear Park	\$ 645	\$ 645
Special Properties	\$ 2,877	\$ 2,880
Trails (per acre)	\$ 4,450	\$ 4,450
Trails (per mile)	\$ 10,900	\$ 10,900

Source: Conservationtechnix.

Appendix E2: Identified Capital Improvement Projects

Fiscal Year Ending 6/30:	2015	2016	2017	2018	2019	2020	2021
92013 - Fanno Creek Remeander							
Revenues							
Bonds/SDCs	\$0	\$0	\$145,000	\$752,000	\$250,000	\$0	\$0
Expenses							
Internal Expenses	\$0	\$0	\$25,000	\$45,000	\$90,000	\$0	\$0
External Expenses	\$0	\$0	\$120,000	\$707,000	\$160,000	\$0	\$0
92016 - Dirksen Nature Park							
Revenues							
Bonds/SDCs	\$375,000	\$295,593	\$0	\$0	\$0	\$0	\$0
Transfers from enterprise funds	\$12,000	\$165,000	\$0	\$0	\$0	\$0	\$0
Transfers from other funds (urban forestry)	\$100,000	\$100,000	\$100,000	\$0	\$0	\$0	\$0
Transfers from parks capital fund	\$0	\$0	\$857,500	\$604,150	\$0	\$0	\$0
Transfers from transp CIP fund	\$0	\$0	\$0	\$0	\$1,174,500	\$0	\$0
Expenses							
Internal Expenses	\$77,000	\$55,393	\$57,500	\$40,900	\$50,600	\$0	\$0
External Expenses	\$410,000	\$505,200	\$900,000	\$563,250	\$1,123,900	\$0	\$0
92017 - Tree Canopy Replacement Program							
Revenues							
Transfers from other funds (urban forestry)	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Expenses							
Internal Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
External Expenses	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
92026 - Park Land Acquisition							
Revenues							
Bonds/SDCs	\$4,004	\$885,649	\$0	\$0	\$0	\$0	\$0
Expenses							
Internal Expenses	\$4,004	\$0	\$0	\$0	\$0	\$0	\$0
External Expenses	\$0	\$885,649	\$0	\$0	\$0	\$0	\$0
92028 - Downtown Land Acquisition							
Revenues							
Bonds/SDCs	\$530,000	\$770,000	\$0	\$0	\$0	\$0	\$0
Expenses							
Internal Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
External Expenses	\$530,000	\$770,000	\$0	\$0	\$0	\$0	\$0
92034 - Tigard Street Trail and Public Space (Main St. to Tiedeman Ave./Tigard St.)							
Revenues							
Bonds/SDCs	\$15,000	\$10,000	\$0	\$0	\$0	\$0	\$0
Transfers from other funds (general fund)	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0
Expenses							
Internal Expenses	\$35,000	\$10,000	\$0	\$0	\$0	\$0	\$0
External Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
92035 - City of Tigard/Tigard-Tualatin School District Park Development							
Revenues							
Bonds/SDCs	\$0	\$135,000	\$0	\$0	\$0	\$0	\$0
Expenses							
Internal Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
External Expenses	\$0	\$135,000	\$0	\$0	\$0	\$0	\$0
92037 - Damaged Tree Replacement Program							
Revenues							
Transfers from other funds (urban forestry)	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Expenses							
Internal Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
External Expenses	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
92046 - Fanno Creek Trail Connection (RFFA Grant)							
Revenues							
Bonds/SDCs	\$5,000	\$420,000	\$672,440	\$320,000	\$0	\$0	\$0
Transfers from enterprise funds	\$5,000	\$200,000	\$97,560	\$0	\$0	\$0	\$0
Regional Flexible Funds	\$0	\$0	\$1,670,000	\$1,410,000	\$0	\$0	\$0
Expenses							
Internal Expenses	\$10,000	\$169,107	\$200,000	\$50,000	\$0	\$0	\$0
External Expenses	\$0	\$450,893	\$2,240,000	\$1,680,000	\$0	\$0	\$0
Total							
Revenues							
Bonds/SDCs	\$929,004	\$2,516,242	\$817,440	\$1,072,000	\$250,000	\$0	\$0
Transfers from enterprise funds	\$17,000	\$365,000	\$97,560	\$0	\$0	\$0	\$0
Transfers from transp CIP fund	\$0	\$0	\$0	\$0	\$1,174,500	\$0	\$0
Regional Flexible Funds	\$0	\$0	\$1,670,000	\$1,410,000	\$0	\$0	\$0
Transfers from parks capital fund	\$0	\$0	\$857,500	\$604,150	\$0	\$0	\$0
Transfers from other funds (urban forestry)	\$100,000	\$250,000	\$250,000	\$150,000	\$150,000	\$150,000	\$150,000
Transfers from other funds (general fund)	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenues	\$1,066,004	\$3,131,242	\$3,692,500	\$3,236,150	\$1,574,500	\$150,000	\$150,000
Expenses							
Internal Expenses	\$126,004	\$234,500	\$282,500	\$135,900	\$140,600	\$0	\$0
External Expenses	\$940,000	\$2,896,742	\$3,410,000	\$3,100,250	\$1,433,900	\$150,000	\$150,000
Total Expenses	\$1,066,004	\$3,131,242	\$3,692,500	\$3,236,150	\$1,574,500	\$150,000	\$150,000

Source: City of Tigard, compiled by FCS GROUP

Appendix E3: Development of Current Parks Land Inventory & Addition of New Parks

	Timing	City Cost for Land	Non-SDC Funded Portion	PARC-Eligible Costs	City Cost for Development	Non-SDC Funded Portion	PARC-Eligible Costs	Scenario 4 Eligible - Dev of Current Parks	Scenario 5 Eligible - Addition of new Parks
Neighborhood/pocket parks:									
Total Land/Development		34.05			57.05			2.28	25.28
Bonita Park	0-10 years	\$0	6.68%	\$0	\$75,000	44.30%	\$33,229	\$33,229	\$0
Metzger Elementary School	5-15 years	\$0	6.68%	\$0	\$437,000	44.30%	\$193,612	\$193,612	\$0
Northview Park	5-15 years	\$0	6.68%	\$0	\$367,000	44.30%	\$162,599	\$162,599	\$0
Proposed Local Park (P12)	5-15 years	\$549,840	6.68%	\$36,754	\$927,000	44.30%	\$410,706	\$0	\$447,460
Proposed Local Park (P9)	5-15 years	\$1,202,775	6.68%	\$80,399	\$927,000	44.30%	\$410,706	\$0	\$491,105
Future Neighborhood Park	10+ years	\$4,811,100	6.68%	\$321,595	\$2,947,800	44.30%	\$1,306,019	\$0	\$1,627,614
River Terrace Parks	1-20 years	\$3,752,000	6.68%	\$250,800	\$2,216,375	44.30%	\$981,962	\$0	\$1,232,762
Total neighborhood/pocket parks								\$389,440	\$3,798,942
Community parks:									
Total Land/Development		42.10			61.10			0.00	0.00
Sunrise Community Park	0-10 years	\$0	0.00%	\$0	\$2,468,000	0.00%	\$0	\$0	\$0
New Community Park (P11)	5-15 years	\$100,000	0.00%	\$0	\$900,000	0.00%	\$0	\$0	\$0
New Community Park Complex	10+ years	\$6,108,325	0.00%	\$0	\$10,084,000	0.00%	\$0	\$0	\$0
Fanno Creek Park: Urban Plaza	0-10 years	\$687,300	0.00%	\$0	\$4,100,000	0.00%	\$0	\$0	\$0
Community parks in River Terrace	1-20 years	\$7,508,000	0.00%	\$0	\$8,386,000	0.00%	\$0	\$0	\$0
Total community parks								\$0	\$0
Linear parks:									
Total Land/Development		37.04			37.04			10.56	10.56
Tigard Triangle Area (P3)	0-10 years	\$0	28.52%	\$0	\$250,000	28.52%	\$71,293	\$71,293	\$0
Commercial Park	5-15 years	\$0	28.52%	\$0	\$545,000	28.52%	\$155,420	\$155,420	\$0
Englewood Park	5-15 years	\$0	28.52%	\$0	\$1,340,000	28.52%	\$382,133	\$382,133	\$0
Fanno Creek Park: Park Gateway	0-10 years	\$0	28.52%	\$0	\$850,000	28.52%	\$242,398	\$242,398	\$0
Fanno Creek Park: Upland Park	0-10 years	\$0	28.52%	\$0	\$1,100,000	28.52%	\$313,691	\$313,691	\$0
Undeveloped Linear Park (P7)	5-15 years	\$0	28.52%	\$0	\$275,000	28.52%	\$78,423	\$78,423	\$0
River Terrace Linear Parks	1-20 years	\$3,128,000	28.52%	\$892,024	\$228,000	28.52%	\$65,020	\$0	\$957,044
Total linear parks								\$1,243,358	\$957,044
Open space:									
Total Land/Development		66.14			66.14			0.00	0.00
Open Space 1	5-15 years	\$412,380	0.00%	\$0	\$0	0.00%	\$0	\$0	\$0
Open Space 2	10+ years	\$567,023	0.00%	\$0	\$0	0.00%	\$0	\$0	\$0
Total open space								\$0	\$0
Trails:									
Total Land/Development		6.75			6.75			0.00	0.00
Fanno Creek (already funded) (trail project)	0-10 years	\$0	0.00%	\$0	\$670,000	0.00%	\$0	\$0	\$0
Westside Trail	0-10 years	\$0	0.00%	\$0	\$0	0.00%	\$0	\$0	\$0
Tigard Street (trail project A)	0-10 years	\$0	0.00%	\$0	\$634,000	0.00%	\$0	\$0	\$0
Fanno Creek (trail project C)	0-10 years	\$0	0.00%	\$0	\$1,040,000	0.00%	\$0	\$0	\$0
Fanno Creek & Tualatin River (trail project D)	0-10 years	\$0	0.00%	\$0	\$1,609,500	0.00%	\$0	\$0	\$0
Summer Creek (trail project F)	0-10 years	\$0	0.00%	\$0	\$742,500	0.00%	\$0	\$0	\$0
Fanno Creek (trail project G)	5-15 years	\$0	0.00%	\$0	\$0	0.00%	\$0	\$0	\$0
Fanno Creek (trail project H)	5-15 years	\$0	0.00%	\$0	\$206,500	0.00%	\$0	\$0	\$0
Tigard Street (trail project I)	5-15 years	\$0	0.00%	\$0	\$0	0.00%	\$0	\$0	\$0
Ascension (trail project N)	10+ years	\$0	0.00%	\$0	\$461,000	0.00%	\$0	\$0	\$0
Krueger Creek & Summer Creek (trail project P)	10+ years	\$0	0.00%	\$0	\$495,500	0.00%	\$0	\$0	\$0
River Terrace Trails	1-20 years	\$690,000	0.00%	\$0	\$764,000	0.00%	\$0	\$0	\$0
Total trails								\$0	\$0
Total Costs		\$29,516,743			\$45,046,175			\$1,632,809	\$4,755,996

Source: Parks SDC Methodology, compiled by FCS GROUP.

Appendix E4: Arts and Culture Program Assumptions

Arts and Culture Program Assumptions			
	Total Costs*	Per Capita Cost	Tigard
Personnel Services	\$20,640	\$0.27	\$13,232
Materials and Services	\$128,720	\$1.68	\$82,522
Capital Outlay	\$0	\$0.00	\$0
Other	\$0	\$0.00	\$0
Total	\$149,360	\$1.95	\$95,754
Population	76,650		49,140

Source: based on similar program in Medford, Oregon.

